

PATENT COOPERATION TREATY

From the Japan Patent Office (INTERNATIONAL SEARCHING AUTHORITY)

To: Agent for Applicant

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(Implementing Regulation 40 bis)
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 7.6.2005

Applicant's or agent's file reference

F635PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/002173

International filing date (day/month/year)

14.02.2005

Priority date (day/month/year)

23.04.2004

International Patent Classification (IPC)

Int. Cl⁷ H01G 4/12 H01G 4/232 H01G 4/30

Applicant

Murata Manufacturing Co., Ltd.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220

3. For further details, see notes to Form PCT/ISA/220

Date of completion of this opinion

19.05.2005

Name and mailing address of the ISA/JP

Japan Patent Office

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Examiner (Authorized officer)

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/002173

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purpose of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																		
1. Statement	<table style="width: 100%; border-collapse: collapse;"><tr><td style="width: 30%; vertical-align: top;">Novelty (N)</td><td style="width: 40%; border-bottom: 1px solid black;">Claims 1-15</td><td style="width: 30%; text-align: right; vertical-align: bottom;">YES</td></tr><tr><td></td><td style="border-bottom: 1px solid black;">Claims</td><td style="text-align: right; vertical-align: bottom;">NO</td></tr><tr><td style="vertical-align: top;">Inventive step (IS)</td><td style="border-bottom: 1px solid black;">Claims 1-15</td><td style="text-align: right; vertical-align: bottom;">YES</td></tr><tr><td></td><td style="border-bottom: 1px solid black;">Claims</td><td style="text-align: right; vertical-align: bottom;">NO</td></tr><tr><td style="vertical-align: top;">Industrial applicability (IA)</td><td style="border-bottom: 1px solid black;">Claims 1-15</td><td style="text-align: right; vertical-align: bottom;">YES</td></tr><tr><td></td><td style="border-bottom: 1px solid black;">Claims</td><td style="text-align: right; vertical-align: bottom;">NO</td></tr></table>	Novelty (N)	Claims 1-15	YES		Claims	NO	Inventive step (IS)	Claims 1-15	YES		Claims	NO	Industrial applicability (IA)	Claims 1-15	YES		Claims	NO
Novelty (N)	Claims 1-15	YES																	
	Claims	NO																	
Inventive step (IS)	Claims 1-15	YES																	
	Claims	NO																	
Industrial applicability (IA)	Claims 1-15	YES																	
	Claims	NO																	
2. Citations and explanations:	<p>Document 1: JP 4-273417 A (Mitsubishi Materials Corporation) September 29, 1992, full text</p> <p>Document 2: JP 57-148331 A (NEC Corporation) September 13, 1982, full text</p> <p>Document 3: JP 6-349314 A (Murata Manufacturing Company, Ltd.) December 22, 1994, Paragraph [0008]</p> <p>Document 4: JP 2002-158137 A (TDK Corporation) May 31, 2002, full text</p> <p>· Claims 1 to 15</p> <p>None of Documents 1 to 4 discloses or suggests that different amounts of alkali metal are contained in first and second glasses contained in first and second sintered electrode layers, respectively, and the softening temperature of the glass contained in the second sintered electrode layer is lowered to less than that of the glass contained in the first sintered electrode layer.</p> <p>Accordingly, the invention according to Claims 1 to 15 is not disclosed in Documents 1 to 4, and is not obvious to those skilled in the art.</p>																		

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/002173

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported the description, are made:

Claim 1 discloses that a first borosilicate glass contains “85% to 95% by weight of silicon and 0.5% to 1.5% by weight of the alkali metal” and a second borosilicate glass contains “65% to 80% by weight of silicon and 3.5% to 8.0% by weight of the alkali metal.” In the description, however, examples within the above ranges of contents are only a first borosilicate glass containing 90% by weight of silicon and 1.0% by weight of alkali metal and a second borosilicate glass containing 75% by weight of silicon and 5.0% by weight of alkali metal (see Paragraphs [0049] to [0053]). That is, the description does not sufficiently support the advantages disclosed therein (see Paragraph [0018]) for all ranges of contents of the borosilicate glasses according to Claim 1.

Consequently, Claims 1 to 7 are not sufficiently supported by the description.